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**RNA-binding proteins in neurodegeneration: Seq and you shall receive.**

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**Public Summary:**

As critical players in gene regulation, RNA binding proteins (RBPs) are taking center stage in our understanding of cellular function and disease. In our era of bench-top sequencers and unprecedented computational power, biological questions can be addressed in a systematic, genome-wide manner. Development of high-throughput sequencing (Seq) methodologies provides unparalleled potential to discover new mechanisms of disease-associated perturbations of RNA homeostasis. Complementary to candidate single-gene studies, these innovative technologies may elicit the discovery of unexpected mechanisms, and enable us to determine the widespread influence of the multifunctional RBPs on their targets. Given that the disruption of RNA processing is increasingly implicated in neurological diseases, these approaches will continue to provide insights into the roles of RBPs in disease pathogenesis.

**Scientific Abstract:**

As critical players in gene regulation, RNA binding proteins (RBPs) are taking center stage in our understanding of cellular function and disease. In our era of bench-top sequencers and unprecedented computational power, biological questions can be addressed in a systematic, genome-wide manner. Development of high-throughput sequencing (Seq) methodologies provides unparalleled potential to discover new mechanisms of disease-associated perturbations of RNA homeostasis. Complementary to candidate single-gene studies, these innovative technologies may elicit the discovery of unexpected mechanisms, and enable us to determine the widespread influence of the multifunctional RBPs on their targets. Given that the disruption of RNA processing is increasingly implicated in neurological diseases, these approaches will continue to provide insights into the roles of RBPs in disease pathogenesis.

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